

Remarks

The amendments to the claims

Examiner will immediately see that the amendments are fully supported by the Specification as filed and that the amendments to the second clause of the body of claim
 5 187 and the related amendments to the dependent claims overcome the rejection under 35 U.S.C. 112, second paragraph. The amendments to the first clause of the body of claim 187 make it clear that a representation of a model entity is capable of simultaneously belonging to two hierarchies.

10 Patentability of Applicant's amended claims over the Board and Aoyama references

This traversal will begin with a review of the state of the art at the time Applicant's invention was made, will then present the invention, will next discuss the disclosure of Aoyama, and finally show why Applicant's claims are patentable over the Board and Aoyama references.

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State of the art at the time Applicant's invention was made

The problem that motivates people to build interactive project management systems is the difficulty of understanding what is going on in an organization. The systems work by providing tools for making a model of the organization which users of the system may
 20 then view and manipulate. The model is generally implemented using a relational database. One approach, used in systems such as the ones described in the Board, is to provide a single class of model into which all kinds of organizations must be made to fit. Organizations are typically hierarchically organized, and consequently, some of the systems permit hierarchical organization of at least some aspects of the model. One of
 25 these is Open Plan as disclosed in Board. Common to all of the interactive project management systems is the problem that if an aspect of an organization does not fit the class of model provided by the project management system, it cannot be expressed in the project management system.

30 U.S. patent 5,655,118, Heindel, et al., *Methods and apparatus for managing information on activities of an enterprise*, issued 8/5/97 (henceforth "Heindel"), cited in the Office

action of 5/27/04, solves the problem of aspects of an organization that do not fit the class of model provided by a particular project management system by permitting the user to make any kind of model he or she wants of the organization. As shown in Heindel's FIG. 2, a model made using Heindel's system may be made up of strategic plans, projects, tasks, products, subprojects, or employees, and any of these elements may be related to any other of these elements. As set forth at col. 6, lines 62-65 of Heindel,

activity information data elements are stored in the database 200 using a non-hierarchical entity relationship model, as opposed to the hierarchical models employed by conventional project management systems.

FIG. 5 gives an example of the kinds of models that can be made using the system of Heindel.

Heindel's system overcomes the limitations of the project planning software such as Open Plan that provides a single class of model, but it does so at a cost:

- Because the user can make any kind of model, it is left to the user to decide in every respect how the organization should be modeled. In effect, every user who employs Heindel to model an organization must "reinvent the wheel".
- Because the models made using Heindel's system may be completely arbitrary, they will be difficult for users other than the creator of the model to understand.
- The generality of the system requires a high degree of complexity in the database itself and in the user interface and report generation systems.

The problem posed to the user by systems that have a single class of model on the one hand and Heindel's system on the other is this: The systems that permit a single class of model are easy to understand and use, but are not powerful enough to model many commonly-occurring aspects of organizations. For example, the single model class systems cannot easily deal with cross-hierarchical organizational functions such as HR or accounting or cross-hierarchical matters such as customer satisfaction. Heindel, on the other hand, can model anything, but each modeling problem must be approached from scratch and neither model makers nor model users can use experience gained with one model made using Heindel's system to understand another model made using Heindel's system.

Applicant's invention of claim 187

Applicant's "system for supporting management of a business by people involved therein" solves the problem posed by the limitations of the single model class systems and the complete generality of Heindel by providing users with tools that let them model their organization as it appears from two hierarchical perspectives. The first of these perspectives is a hierarchy of goals, which is similar to a hierarchy which a user may make with a planning tool such as Open Plan. The second of these is a hierarchy of domains, that is, elements of the business organization which cut across the hierarchy of goals. An element of the goal hierarchy may also belong to a domain in the hierarchy of domains. FIG. 8 shows a typical domain hierarchy; as can be seen from the figure, the domains are business concerns which cut across many goals. The goal hierarchy is described at least at page 22, line 19-page 23, line 7 of Applicant's Specification and shown in FIGs. 13-15. FIG. 16, finally shows how the goals in the goal hierarchy may be sorted by the domain hierarchy, so that a user of the system can see the goals in the context of the domain hierarchy. The GUI shown in FIGS. 8, 13-15, and 16 permits the user to define and modify the goal hierarchy and the domain hierarchy, define and modify goals and position them in the goal and domain hierarchies, and access information such as documents, discussions, and email about a goal via the representation of the goal in the GUI.

By adding the domain hierarchy to the goal hierarchy and permitting elements of the goal hierarchy to be related to elements of the domain hierarchy, Applicant's management support system permits models which provide perspectives lacking in the simple models permitted by the Board systems while avoiding the complexities of Heindel's generalized modeling system. Both the goal hierarchy and the domain hierarchy are intuitive in themselves, and the manner in which an element of a domain hierarchy may also relate to a domain in the domain hierarchy is also easy to understand. Further, since all models made using Applicant's modeling system have the same characteristics, model makers do not have to constantly "reinvent the wheel" and users who encounter new models made

using Applicant's modeling system already have the knowledge needed to understand the models' basic structures.

The disclosure of Aoyama

5 Applicant's invention, Heindel, and the systems disclosed in Board all permit their users to make their own models of what they are doing within the class of models permitted by the system they are using. Aoyama, by contrast, is not a system for making, modifying, and using a model, but instead a software development environment which implements a particular model of the software development process. The users of Aoyama cannot
10 change the model upon which the software development environment is based in any way.

The foregoing distinction between a system which *implements* a model and the system of Applicant's invention, the system of Heindel, and the systems disclosed in Board, which
15 are systems for *making* and *modifying* models, is apparent on careful consideration of the figures of Aoyama. FIG. 1 shows how the Agile Software Process (ASP) software development process that Aoyama's software development environment was developed to support. FIG. 2, which Examiner chiefly relies on for her rejections, shows how the ASP is managed in terms of the categories organization, process, and project. It is this
20 management model which is implemented in Aoyama's software development environment. FIGs. 3-5 and 8 show various aspects of the architecture of the software development environment. FIG. 6 shows the workflow in the software development environment. Fig. 8 shows a report generated by the environment; FIG. 9 is a categorization of design information. The only disclosure of how the user relates to the
25 software development system is provided by FIGs. 7 and 11, which show the GUIs for the Prime and WAIN levels of the software development system. FIG. 7 is described as follows at page 62, first column, beginning at line 7:

30 Figure 7 shows a screen view of Prime. The upper-left subwindow shows a list of base processes. The upper-right subwindow shows planning support. The progress of multiple teams and individual developers appear in the screen's left and right-bottom subwindows, respectively.

FIG. 11 is described only as a “Sample screen from WAIN”. Neither GUI suggests in any way that the user of the software development system can alter the software development management model of FIG. 2.

- 5 This distinction between a system which *implements* a model and a system which permits users to *make* models becomes particularly apparent when the GUI of FIG. 7 is compared with the GUIs of Applicant’s FIGs. 6, 12, and 13, which show how users of Applicant’s system may make and modify their models’ hierarchies.

10 *Patentability of claim 187 over the combination of Board and Aoyama*

As currently amended, claim 187 reads as follows:

187. (currently amended) A system for supporting management of a business by persons involved therein, the system comprising:

- 15 a processor which has access to a representation of a model of the business, the model including representations of model entities, a given representation of a model entity being capable of simultaneously belonging to hierarchies including a hierarchy and another hierarchy, and the representations of model entities providing access to information relating to the business; and

- 20 an interface to the system for a person of the persons, the interface being provided by the processor and the interface receiving first inputs from the person, the processor responding to the first inputs by outputting the representations of the model entities, of the hierarchies, and/or of the information to which the model entities provide access in
25 tangible form and further receiving second inputs from the person to which the processor responds by modifying the representations of the model entities, the hierarchies, and/or the information to which the representations of the model entities provide access.

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- Examiner bases her rejection of the claim on the combination of Board with the disclosure of FIG. 2 of Aoyama. As already pointed out, what FIG. 2 shows is not a model which users of Aoyama’s software development environment may view and modify, but rather a “management model” which the software development environment
35 “supports” (Aoyama, page 59, col. 1, lines 34-35. Because the “management model” of FIG. 2 has nothing whatever to do with any model which may be viewed and modified in Aoyama, FIG. 2, and indeed all of Aoyama, are simply not relevant to the invention of

claim 187 and cannot supply the claim limitations that are lacking in Board. Since that is the case, the combined references do not disclose all of the limitations of claim 187 and Examiner has not made her *prima facie* case of obviousness. As Examiner will immediately see, the same arguments hold with regard to independent claim 198 as well.

Further, because Aoyama is not relevant to Applicants' invention, dependent claims 188, 192-196, and the corresponding claims dependent from independent claim 198 are patentable in their own rights over the Board reference for the reasons set forth in Applicant's response of 2/24/05.

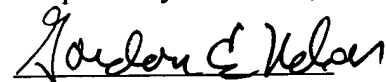
10 Conclusion

Applicants have amended their claims as requested by Examiner to make it clear that a representation of a model entity is capable of simultaneously belonging to more than one hierarchy, have amended claim 187 and dependent claims 188, 190, 191, 192, and 193 to overcome the rejection under 35 U.S.C. 112, and have shown that the combination of the

Board and Aoyama references does not show all of the limitations of Applicants' independent claims and that certain of the dependent claims are patentable in their own rights over the references. Applicant has thus been fully responsive to Examiner's Office action of 12/13/05 as required by 37 C.F.R. 1.111(b) and respectfully request that Examiner continue with her examination of the amended claims as provided by 37 C.F.R.

1.111(a). No fees are believed to be required for this response. Should any be, please charge them to deposit account number 501315. Applicant's Attorney would like to close by thanking Examiner and her SPE Susanna Diaz both for granting for the interview and making it such a pleasure.

Respectfully submitted,



Attorney of record,

Gordon E. Nelson

57 Central St., P.O. Box 782

Rowley, MA, 01969,

Registration number 30,093

Voice: (978) 948-7632

Fax: 1-866-723-0359

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